

## **Claims**

What is claimed is:

- 1        1. A method, comprising:  
2              controlling a data flow associated with at least one of a selected number of  
3              ports having a first actual usage value above a determined average shared  
4              resource usage value associated with the selected number of ports sharing a  
5              resource.
  
- 1        2. The method of claim 1, further comprising:  
2              determining the determined average shared resource usage value.
  
- 1        3. The method of claim 1, further comprising:  
2              removing a control on the data flow associated with the at least one of the  
3              selected number of ports after the at least one of the selected number of ports is  
4              determined to have a second actual usage value below the determined average  
5              shared resource usage value.
  
- 1        4. The method of claim 1, wherein determining the determined average shared  
2              resource usage value comprises:  
3              selecting the selected number of ports by locating at least one port included  
4              in a plurality of ports using an amount of the resource greater than a guaranteed  
5              minimum amount;  
6              determining a cumulative shared usage value based on the selected number  
7              of ports; and  
8              determining the determined average shared resource usage value by dividing  
9              the cumulative shared usage value by the selected number of ports.
  
- 1        5. The method of 1, further comprising:

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2           adjusting the selected number of ports to provide a scaled selected number of  
3       ports based on a port speed associated with a first port and a port speed  
4       associated with a second port, wherein the first port and the second port are  
5       included in the selected number of ports.

1       6. The method of claim 1, further comprising:  
2           repeatedly determining the determined average shared resource usage value  
3       associated with the selected number of ports.

1       7. The method of claim 1, wherein controlling the data flow further comprises:  
2           controlling the data flow associated with the at least one of the selected  
3       number of ports having the first actual usage value above a dynamic threshold  
4       value.

1       8. The method of claim 7, further comprising:  
2           setting the dynamic threshold value as a sum of the determined average  
3       shared resource usage value and a delta value.

1       9. The method of claim 8, further comprising:  
2           determining the delta value according to a port speed and an overall resource  
3       usage value including a cumulative shared usage value based on the selected  
4       number of ports.

1       10. The method of claim 1, wherein the resource comprises a memory.

1       11. An article comprising a machine-accessible medium having associated data,  
2       wherein the data, when accessed, results in a machine performing:  
3           controlling a data flow associated with at least one of a selected number of  
4       ports having an actual usage value above a determined average shared resource  
5       usage value associated with the selected number of ports sharing a resource.

- 1        12. The article of claim 11, wherein the data, when accessed, results in the
- 2              machine performing:  
3                      determining the determined average shared resource usage value.
- 1        13. The article of claim 11, wherein the data, when accessed, results in the  
2              machine performing:  
3                      adjusting the determined average shared resource usage value to provide a  
4                      scaled average shared resource value based on a port speed associated with a  
5                      first port and a port speed associated with a second port, wherein the first port  
6                      and the second port are included in the number of ports.
- 1        14. The article of claim 11, wherein controlling the data flow further comprises:  
2                      controlling the data flow associated with the at least one of the selected  
3                      number of ports having the actual usage value above a dynamic threshold value.
- 1        15. The article of claim 14, wherein the data, when accessed, results in the  
2              machine performing:  
3                      setting the dynamic threshold value as a sum of a scaled average shared  
4                      resource usage value and a delta value.
- 1        16. The article of claim 11, wherein the resource is a memory.
- 1        17. The article of claim 11, wherein determining the determined average shared  
2                      resource usage value comprises:  
3                      selecting the selected number of ports by locating at least one port included  
4                      in a plurality of ports using an amount of the resource greater than a guaranteed  
5                      minimum amount;

6           determining a cumulative shared usage value based on the selected number  
7       of ports; and  
8           determining the determined average shared resource usage value by dividing  
9       the cumulative shared usage value by the selected number of ports.

1       18. The article of claim 17, wherein determining the cumulative shared usage  
2       value comprises:  
3           over the selected number of ports, summing the amount of the resource used  
4       that is greater than a guaranteed minimum amount.

1       19. An apparatus, comprising:  
2           a controlling module to control a data flow associated with at least one of a  
3       selected number of ports having an actual usage value above a determined  
4       average shared resource usage value associated with the selected number of  
5       ports sharing a resource.

1       20. The apparatus of claim 19, further comprising:  
2           an average determination module to determine the determined average  
3       shared resource usage value.

1       21. The apparatus of claim 20, wherein the determined average shared resource  
2       usage value is determined by determining a cumulative shared usage value  
3       based on the selected number of ports and dividing the cumulative shared usage  
4       value by the selected number of ports.

1       22. The apparatus of claim 21, wherein the cumulative shared usage value is  
2       determined by summing, over the selected number of ports, the amount of the  
3       resource used that is greater than a guaranteed minimum amount.

1       23. The apparatus of claim 19, wherein the controlling module comprises a  
2       network processor.

1       24. The apparatus of claim 19, further comprising:  
2              a Layer 2 Ethernet switch.

1       25. An apparatus, comprising:  
2              a memory having a transmit queue storage;  
3              a plurality of ports coupled to the memory;  
4              a reservation module coupled to the plurality of ports to provide a minimum  
5       memory resource per port and to share a remaining memory resource among the  
6       plurality of ports:  
7              an average determination module to determine a determined average shared  
8       resource usage value as the minimum memory resource; and  
9              a controlling module to control a data flow associated with at least one of the  
10      plurality of ports having an actual usage value above the determined average  
11      shared resource usage value.

1       26. The apparatus of claim 25, wherein average determination module is to  
2       determine the determined average shared resource usage value by determining a  
3       cumulative shared usage value based on the plurality of ports and dividing the  
4       cumulative shared usage value by the plurality of ports.

1       27. The apparatus of claim 25, wherein the memory is to store a plurality of  
2       packets in the transmit queue storage.

1       28. A system, comprising:  
2              a controlling module to control a data flow associated with at least one of a  
3       selected number of ports having a first actual usage value above a determined

4       average shared resource usage value associated with the selected number of  
5       ports sharing a resource; and  
6       a connector including at least one of the selected number of ports.

1       29. The system of claim 28, further comprising:  
2           an omnidirectional antenna to receive information included in the data flow.

1       30. The system of claim 28, further comprising:  
2           a memory coupled to the selected number of ports.

1       31. The system of claim 30, wherein the memory comprises a transmit queue  
2       storage.

1       32. The system of claim 28, further comprising:  
2           a communications medium to couple to the connector.